

CLAIMS

- 5 1. Additive for hydraulically setting systems based on modified polycarboxylates and water-soluble ethers of high polymeric polysaccharides, optionally containing further standard additives, characterized by a content of:
- a) a water-soluble ether of cellulose or a cellulose-like compound with a viscosity of at least approximately 1,000 mPas, particularly at least
10 approximately 2,000 mPas, measured as a 2% aqueous solution with a Brookfield viscosimeter at 20°C and 20 rpm, and
- b) a polycarboxylate, whose main chain is linked via ester, ether, imide and/or amide groups with polyethylene oxide-containing side chains.
- 15 2. Additive according to claim 1, characterized in that there are approximately 0.01 to 2 parts by weight water-soluble ether a) for approximately one part by weight modified polycarboxylate.
3. Additive according to claim 2, characterized in that there are approximately 0.05 to
20 1.5 parts by weight, particularly approximately 0.1 to 1.0 parts by weight water-soluble ether a) for approximately 1 part by weight modified polycarboxylate.
4. Additive according to one of the claims 1 to 3, characterized in that the water-soluble ether a) is in the form of a cellulose ether and/or a guar ether.
- 25 5. Additive according to one of the claims 1 to 4, characterized in that the water-soluble ether a) is in the form of a cellulose ether with a degree of substitution of approximately 1.2 to 2.9, particularly approximately 1.6 to 2.2.
- 30 6. Additive according to one of the claims 1 to 5, characterized in that the water-soluble ether a) has etherification groups in the form of alkoxy groups, particularly in the form of alkoxy groups with 1 to 4 carbon atoms.
7. Additive according to claim 6, characterized in that the alkoxy groups are methoxy,
35 ethoxy and/or propoxy groups.

8. Additive according to at least one of the preceding claims, characterized in that the water-soluble ether a) has a viscosity of at least approximately 5,000 mPas, preferably at least approximately 10,000 mPas and more particularly at least approximately
5 20,000 mPas.

9. Additive according to at least one of the preceding claims, characterized in that it contains further standard additives in the form of agents for controlling the setting rate and strength structure, defoamers, organic or inorganic binders, water repellents,
10 surfactants, pigments, fillers, quartz powder and/or calcium carbonate.

10. Additive according to at least one of the preceding claims, characterized in that it contains an organic binder in the form of a dispersion powder.

11. Additive according to at least one of the preceding claims 1 to 9, characterized in that, based on approximately 1 part by weight of a mixture of components a) and b), it contains at least approximately 0.005 parts by weight additives, excluding binders.
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12. Additive according to one of the claims 9 or 10, characterized in that there are at least approximately 1 part by weight organic binder, particularly approximately 2 to 50 parts by weight thereof, for 1 part by weight of the mixture of components a) and b).
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13. Hydraulically setting mixture with a content of an additive according to at least one of the preceding claims 1 to 12.
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14. Hydraulically setting mixture with a content of an additive according to at least one of the preceding claims 1 to 12, as well as a content of organic binder in the form of a dispersion powder.

15. Hydraulically setting mixture according to claim 13 or 14, characterized in that the hydraulically setting component is based on cement, optionally accompanied by the incorporation of lime hydrate and/or gypsum.
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16. Hydraulically setting mixture according to claim 15, characterized in that the cement is in the form of Portland cement and/or aluminous cement.
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17. Hydraulically setting mixture according to one of the claims 13 to 16, characterized in that there are approximately 80 to 1,500 and in particular approximately 100 to 500 parts by weight of hydraulically setting components for approximately 1 part by weight of additive, based on the sum of components a) and b).

18. Hydraulically setting mixture according to at least one of the claims 13 to 17, characterized in that it has a water retention value exceeding that of a casein superplasticiser-containing, hydraulically setting mixture with the same composition by more than approximately 20%, particularly more than approximately 50%.

19. Use of the additive according to at least one of the preceding claims 1 to 12 as a constituent of hydraulically setting systems, particularly based on cement and/or aluminous cement.

20. Use according to claim 19, characterized in that the hydraulically setting system additionally contains lime hydrate and/or gypsum.

21. Use according to claim 19 or 20 in dry, grouting, injection and repair mortars, flow control materials, plasters, sealing sludges, fillers, surfacers, finished gypsum parts, concretes, such as flooring plaster, continuously reinforced concrete, close texture lightweight concrete, high strength concrete, normal concrete, in situ concrete, exposed concrete, prestressed concrete, air-placed concrete, reinforced concrete, self-sealing concrete (SCC), transport concrete, preferably in self-levelling priming and compensating materials, particularly self-levelling floor compensating materials.

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